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09/835,991	04/16/2001	Robert A. Unger	50P4318.01	6030
7590 Jonathan O Owens Haverstock & Owens LLP 162 North Wolfe Road Sunnyvale, CA 94086		08/24/2010	EXAMINER LONSBERRY, HUNTER B	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT A. UNGER

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Appeal 2009-006465  
Application 09/835,991  
Technology Center 2400

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Before KENNETH W. HAIRSTON, CARL W. WHITEHEAD, JR., and  
BRADLEY W. BAUMEISTER, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. §1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is an appeal under 35 U.S.C. §§ 6(b) and 134 from the final rejection of claims 1 to 16, 18 to 21, and 23. We will reverse.

The disclosed invention relates to a broadcast receiver that closes a wake-up switch in direct response to receipt of a wake-up signal to thereby provide power from a power supply to the broadcast receiver (Figs. 3-5; Spec. 5-10; Abstract).

Claim 1 is representative of the claims on appeal, and it reads as follows:

1. A broadcast receiver comprising:
  - a. a power supply having a power-supply output terminal; and
  - b. a broadcast interface circuit including:
    - i. an interface-circuit input terminal adapted to receive a plurality of broadcast communications signals, each signal modulated about a selected carrier frequency;
    - ii. a tuner having a tuner input terminal coupled to the interface circuit input terminal, wherein the tuner selects one of the signals and provides the selected signal on a tuner output terminal;
    - iii. a wake-up sensor having a sensor input terminal coupled to the interface circuit input terminal and a wake-up-sensor output terminal, wherein the wake-up sensor produces a wake-up signal on the wake-up sensor output terminal directly in response to receiving a first selected signal; and
    - iv. a wake-up switch having a wake-up-switch input terminal coupled to the power-supply output terminal, a wake-up-switch output terminal, and a wake-up-switch control terminal coupled to the wake-up-sensor output terminal to receive the wake-up signal, wherein the wake-up switch is closed in direct response to receiving the wake-up signal thereby providing power from the power-supply output terminal to the wake-up switch output terminal.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Kimoto

US 6,054,981

Apr. 25, 2000

Kawaguchi	US 6,271,893 B1	Aug. 7, 2001
Krakirian	US 2002/0073423 A1	Jun. 13, 2002
Nakatsuyama	US 6,658,231 B2	Dec. 2, 2003
Miner	US 6,690,655 B1	Feb. 10, 2004

The Examiner rejected claims 1, 2, 4 to 9, 11, and 13 to 15 under 35 U.S.C. § 103(a) based upon the teachings of Nakatsuyama, Kawaguchi, and Miner.

The Examiner rejected claims 16, and 18 to 20 under 35 U.S.C. § 103(a) based upon the teachings of Kawaguchi, Kimoto, and Miner.

The Examiner rejected claims 3, 10, and 12 under 35 U.S.C. § 103(a) based upon the teachings of Kawaguchi, Kimoto, and Krakirian.

The Examiner rejected claims 21 and 23 under 35 U.S.C. § 103(a) based upon the teachings of Kawaguchi and Miner.

According to the Examiner (Final Rej. 5-7), Nakatsuyama differs from claim 1 in that it does not disclose “a wake-up signal in direct response to a first selected signal” in limitation (iii), and the ultimate limitation (iv). According to the Examiner (Final Rej. 7, 8), Kawaguchi describes all of limitation (iv), and Miner describes:

a cable system in which a remote interface unit runs in a low power standby mode and a high power active mode, in response to a wake up command received via a downstream channel, the RIU transitions from a standby mode to an active state in order to receive user or control information over a secondary downstream channel without adversely impacting the throughput rate of the primary downstream channel (column 4, lines 7-44).

The Examiner is of the opinion (Final Rej. 7) that it would have been obvious to one of ordinary skill in the art to modify Nakatsuyama with the teachings of Kawaguchi “to provide an efficient way to power up and power down the electronic circuitry associated with receiving program information (See Kawaguchi Col. 1 lines 49-53).” With respect to the additional teachings of Miner, the Examiner indicates (Final Rej. 8) that it would have been obvious to the skilled artisan “to modify the combination of Nakatsuyama and Kawaguchi to utilize the transmission scheme and wake up commands of Miner for the advantages of lower power consumption and reducing the amount of bandwidth needed for control commands via the primary downstream channel (column 4, lines 20-26).”

Appellant argues *inter alia* that:

Claims 1 and 8 include a limitation directed to “a wake-up sensor having a sensor input terminal coupled to the interface circuit input terminal and a wake-up sensor output terminal, wherein the wake-up sensor produces a wake-up signal on the wake-up sensor output terminal directly in response to receiving a first selected signal” (emphasis added). As recognized within the Office Action, the combination of Nakatsuyama and Kawaguchi fail[s] to disclose the use of a wake up signal in direct response to a first selected signal. Miner appears to be cited for this purpose. However, as described above, Miner teaches controlling a remote interface unit, defined as either a cable modem or a wireless modem. Miner does not teach a wake-up sensor which sends a wake-up signal to a wake-up switch in direct response to a first selected signal.

(App. Br. 14).

Based upon the foregoing, we have to determine whether the Examiner erred by finding that the applied prior art discloses a wake-up sensor that sends a wake-up signal to a wake-up switch in direct response to a first selected signal.

Nakatsuyama describes a receiver that operates in a low-power mode until it receives and processes index data or program data (Abstract; col. 5, ll. 59 to 63; col. 7, ll. 32 to 38). As indicated *supra*, the Examiner has acknowledged that Nakatsuyama does not disclose “a wake-up signal in direct response to a first selected signal” or the ultimate limitation in claim 1.

Kawaguchi describes a digital television receiver 4 that has an input terminal of switch 231 coupled to an output terminal of power supply 230 (Fig. 1; col. 4, ll. 38 to 48). The power consumption in the receiver television 4 is controlled by the selective closing of switch 231 and switch 232 (col. 1, ll. 7 to 13; col. 4, ll. 38 to 59; col. 8, ll. 2 to 5). A controller 225 receives inputs from a received signal controller 211, communication IF 228, and user I/O device 227, and the controller 225, in turn, controls the opening and closing of switch 231. In a closed position, the switch 231 provides power to received signal processor 211 (col. 4, ll. 55 to 59). The received signal controller 211, the communication IF 228, the user I/O device 227, and the controller 225 are not described as either a wake-up sensor or a wake-up switch as set forth in the claims 1 and 8. Thus, we agree with Appellant’s argument<sup>2</sup> (App. Br. 14-18) that the switch 231 in

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<sup>2</sup> The Examiner acknowledged (Final Rej. 7) that “[t]he combination of Nakatsuyama and Kawaguchi fails to disclose the use of a wake up signal in direct response to a first selected signal.”

Kawaguchi is not closed “in direct response to receiving the wake-up signal” or the “first selected signal.”

Miner describes a remote interface unit (e.g., a cable modem or a wireless modem) that operates in either a low-power, standby mode or a high-power, active mode (col. 4, ll. 7 to 9). Although the remote interface unit in Miner monitors for a wake-up command while in standby mode (col. 4, ll. 13 to 39), Miner is silent as to a wake-up sensor that sends a wake-up signal to a wake-up switch in direct response to a first selected signal as set forth in claims 1 and 8.

In summary, the obviousness rejection of claims 1 and 8 is reversed because the Examiner erred in finding that the applied references teach or suggest the claimed wake-up sensor and wake-up switch that is closed in direct response to receiving the wake-up signal (i.e., first selected signal) produced by the wake-up sensor. The obviousness rejection of claims 2, 4 to 7, 9, 11, and 13 to 15 is likewise reversed.

The obviousness rejection of claims 3, 10, and 12 is reversed because the power indicator mode teachings of Kimoto (Fig. 1; col. 4, ll. 37 to 42) and the A/D converter teachings of Krakirian (Fig. 1; ¶ 0031) fail to cure the noted shortcoming in the teachings of the references applied in the rejection of claims 1 and 8.

Turning next to the obviousness rejection of claims 16, and 18 to 20, Appellant argues (App. Br. 20) that “neither Kawaguchi, Kimoto, Miner nor their combination teach providing power to a control processor and indicating a standby condition for the receiver while receiving a receiver update, in direct response to receiving a wake-up instruction.” Thus, we have to determine whether the Examiner erred by finding (Final Rej. 15, 16)

that the applied references teach or suggest “providing power to a control processor and indicating a standby condition for the receiver while receiving a receiver update, in direct response to receiving a wake-up instruction<sup>3</sup>.”

Inasmuch as Kawaguchi is silent as to providing a wake-up instruction to controller 225, and is silent as to establishing a standby condition for the receiver in response to a power-off instruction from the user I/O device 227, and neither Kimoto nor Miner recites such functions, we agree with Appellant’s argument (App. Br. 20) that the Examiner erred in finding that the applied references teach or suggest “providing power to a first portion including a control processor of the receiver and indicating a standby condition for the receiver while receiving a receiver update, in direct response to receiving the wake-up instruction” as set forth in claims 16, and 18 to 20. Accordingly, the obviousness rejection of these claims is reversed.

Turning lastly to the obviousness rejection of claims 21 and 23, the rejection is reversed because we agree with Appellant’s argument (App. Br. 24) that the applied references to Kawaguchi and Miner neither teach nor suggest the ultimate limitation (e) in claim 21 because, as indicated *supra* with respect to claim 16, the applied references are silent as to a power-off instruction, and are silent as to providing power to the control processor in direct response to a wake-up instruction in the power-off condition.

In summary, the obviousness rejections of claims 1 to 16, 18 to 21, and 23 are reversed because we agree with Appellant’s arguments that the

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<sup>3</sup> The Examiner acknowledged (Final Rej. 15) that Kawaguchi lacks a teaching of “indicating a standby condition for the receiver in response to the power-off instruction or indicating a standby condition for the receiver while receiving a receiver update, in direct response to receiving the wake-up instruction.”



Examiner's articulated reasoning in the rejection does not support a legal conclusion of obviousness. *KSR Int'l v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007).

The decision of the Examiner is reversed.

REVERSED

gvw

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